nord c2

COMBO ORGAN

User Manual
Nord c2

OS Version 1.x

Part No. 50326
Print Edition 1.4

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CAUTION - ATTENTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
RISQUE DE SHOCK ELECTRIQUE
NE PAS OUVRIR

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED PERSONNEL.

ATTENTION*:POUR EVITER LES RISQUES DE CHOC ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE.*
AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L´USAGER.
CONFIER L´ENTRETIEN AU PERSONNEL QUALIFE.
AVIS*: POUR EVITER LES RISQUES D´INCIDENTE OU D´ELECTROCUTION, N´EXPOSEZ PAS CET ARTICLE A LA PLUIE OU L´HUMIDITET.*

The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated voltage within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

Le symbole éclair avec le point de flèche à l´intérieur d´un triangle équilatéral est utilisé pour alerter l´utilisateur de la presence à l´intérieur du coffret de "voltage dangereux" non isolé d´ampleur suffisante pour constituer un risque d´éléctrocution.

The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Le point d´exclamation à l´intérieur d´un triangle équilatéral est employé pour alerter l´utilisateur de la présence d´instructions importantes pour le fonctionnement et l´entretien (service) dans le livret d´instructions accompagnant l´appareil.

Instructions pertaining to a risk of fire, electric shock or injury to persons.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

Warning - When using electric products, basic precautions should always be followed, including the following:

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Additional Safety Information

No naked flame sources, such as lighted candles, should be placed on the apparatus;

Il convient de ne pas placer sur l´appareil de sources de flammes nues, telles que des bougies allumées;

Do not use the apparatus in tropical climates.

L´appareil n'est pas destiné á étre utilisé sous un climat tropical.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

L´appareil ne doit pas étre exposé á des égouttements d´eau ou des éclaboussures et de plus qu´aucun objet rempli de liquide tel que des vases ne doit étre placé sur l´appareil.

The maims plug is used as the disconnect device and shall remain readily operable.

Lorsque la prise du résau d'alimentation est utilisée comme dispositif de déconnexion, ce dispositif doit demeuré aisément accessible.

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1 Introduction

Thank you!

We would first like to thank you for purchasing the Nord C2 Combo Organ! We hope you will find it to be everything you wished for and that you'll have many hours of great fun with your new instrument.

Development goals

First some history: at the time of designing the Nord C2 Combo Organ, Clavia had already been developing digital tonewheel organ models for more than a decade. The first model featured in the Nord Electro series of instruments was designed to fit comfortably in a multi electro-mechanical instrument along side various piano implementations. With focus given to fit several mechanical instruments into a single package, you are always forced to make some compromises.

Though not surprised, we were definitely thrilled when the Electro started to appear in different magazine's tonewheel clone tests and shoot-outs. It was included for its fabulous sound that some found to be better than far more expensive hardcore clone units. However, due to its single manual and additional piano samples, it was generally included "out of contest".

With the Nord C2's predecessor the C1 Combo Organ we wanted to design an instrument without having to find the right blend of things; like piano vs. organ keyboard action, or multi-effects suited for a wide array of sounds. We wanted to focus on the things needed for killer organ sounds, and those things only.

Some areas we knew were up for improvement prior to the start of the project, others were found along the way. What really paid off was focusing on each of the components involved in the sound generating process, rather than just the sounding outcome. After spending thousands of man hours leaving no detail untouched - no matter how small and seemingly insignificant - we believe we have not only reproduced the perfect tonewheel sound but also the proper response and feel of playing the original instrument.

Taking the next step after developing the Nord C1 was looking at the classical organ sounds. We sourced a beautiful baroque organ and sampled it with the same painstaking effort and focus on quality as we do when we create our other instruments.

And we could not resist the possibility to further tweak the B3 model, to take the award winning realism one step further. The key-on and key-off clicks have been improved together with the modelling of the level and mixes of the individual tonewheels. Enjoy.

Features

The Nord C2 Combo Organ features high quality digital emulations of three vintage organs, a sampled baroque pipe organ, a bunch of effects as well as several amp and speaker cabinet combinations in a single lightweight package.

The dual keyboards, bass pedal input and high level outputs allows you to use the instrument in the exact same application and set-up as with the vintage originals - and several more!

By focusing on each individual component involved in the sound generating process you get not only a vintage sound experience but also spot-on response and feel of playing the original instruments.

The Nord C2 Combo Organ has the following features:

- 1 model of a vintage Tonewheel organ
- 2 models of vintage Vox and Farfisa transistor organs
- 1 sampled baroque pipe organ
- 3 Amplifier models, featuring simulations of the gain characteristics of two popular combo amps as well as a rotary speaker cabinet.
- Selectable rotary speaker models.
- Overdrive, offering a gentle to massive amount of tube-style distortion.
- Vintage-sounding delay, with tap-tempo function and a possibility to limit its operation to the upper manual.
- 3-band EQ
- 5 types of Reverberation - Room, Stage and Hall-types with variations
- Dual manuals with 2 x 61 waterfall keys, featuring a high trigger point for the optimal organ keyboard feel and response time.
- Dedicated MIDI connector for use with any MIDI compatible foot pedalboard to play the bass registers.
- High level outputs, featuring quarter-inch as well as a 11-pin Leslie standard connectors allows you to connect directly to rotary speakers. When using the 11-pin connector, the panel controls for rotation speed are transferred as well.

About this user manual

This manual is arranged mainly as a reference manual. In many cases you'll get tips on how to practically use functions.

The LED-display is referred to as the Display. Whenever there is a reference to the 'keyboard', that reference also applies to incoming MIDI note messages.

2 Overview

The Nord C2 Combo Organ front panel consists of 2 areas, easily identified by their gray and black background color:

Organ performance area

The organ section features the controls for the four different organ models, and this is where you make model specific adjustments. Please refer to “The Organ Area” on page 11.

Effect and Program area

This section is where you set and adjust settings for the effects, the reverb and speaker simulation. This also includes the controls for storing and recalling sound settings into programs, and also adjust system specific parameters. Read more abut the effects on page 16 and the programs on page 15.

Master level knob

The master level knob controls the overall output level for all audio outputs, including high level output and headphone output. The master level knob’s physical position is always the same as the output level.

The keyboard

The Nord C2 Combo Organ keyboards have a high trigger action, which closely mimics the feel and response time of a real organ.

About the knobs

The knobs are of the potentiometer type. This means that when you load a program the values of the parameters can be totally different from the knobs physical positions. As soon as you begin turning a knob, the parameter value will ‘snap’ to the knob’s physical position.

The exception to this is the master level knob. Its physical position always reflects the output level of the Nord C2.

About the buttons

Buttons have different behaviour depending on their functionality:

Selector buttons

Press the selector button repeatedly to select between options printed next to the corresponding LEDs. Note that some options are selected by lighting several leds simultaneously.

On/off buttons

The on/off buttons have a LED next to them to indicate the status of the function.

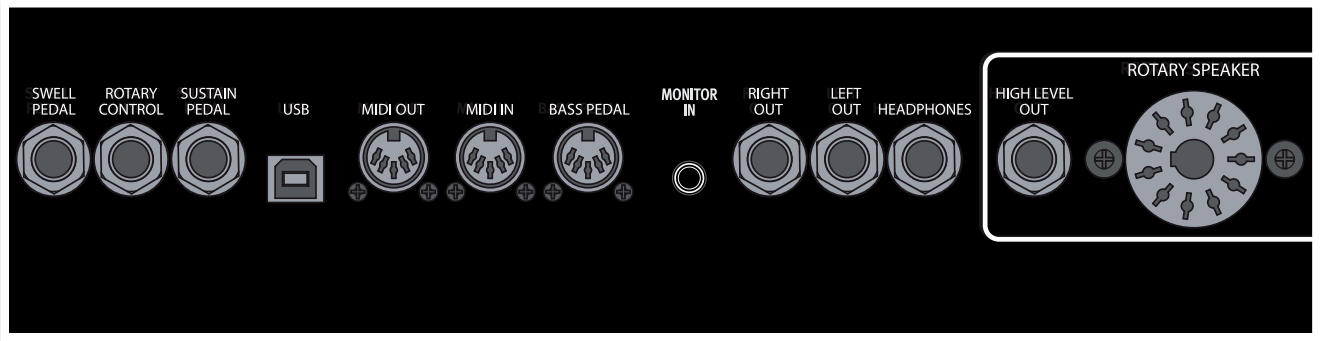
Shift button

Some buttons have a secondary function, available by holding shift while pressing the button. The name of the secondary function is printed just below the button.

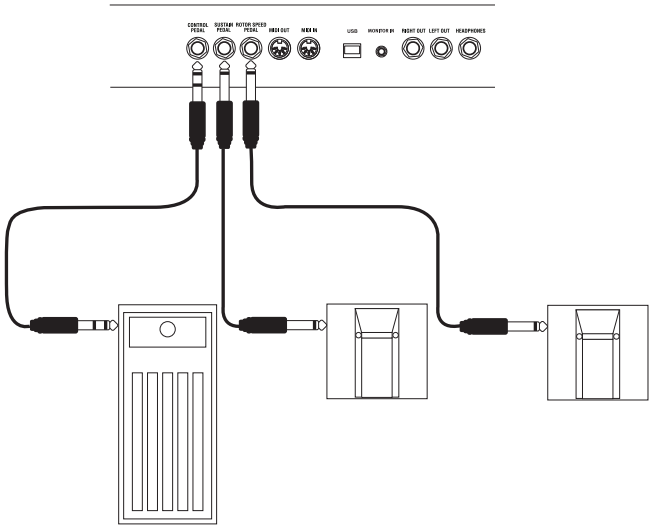
Menu settings

To the right on the panel are the available menu settings printed for your convenience. Read more on how to change these settings on page 17.

3 Connections



Pedal connections



The Nord C2 Combo Organ has three pedal inputs; one for a sustain pedal, one for a rotary speed controller and one for a swell pedal.

Swell Pedal input

Used for controlling the swell level of the selected organ model. When connecting an expression pedal to the Swell Pedal input, you should use a stereo cable with a Tip-Ring-Sleeve connector. Please note that the pedal must have a stereo output jack. The resistance range of a control pedal should be 10 or 50 kOhm. To simplify setup, the most common pedal models (Roland, Yamaha, Ernie Ball and Fatar) are pre-configured in the Nord C2, and you simply select the type of pedal which you want to use in the System menu. Have a look at page 17 for further instructions.

Rotary Control input

Used for controlling the rotary speaker's speed. You can use any standard sustain pedal, switch pedal or the Half Moon Switch accessory. When using the Half Moon Switch accessory you have to configure this as the Control Pedal Type in the System menu. Have a look at page 17 for further instructions.

Sustain Pedal input

¼" connector for a switch type pedal. When a connected pedal is operated, the notes you play will be sustained. You can use any standard sustain type pedal. A polarity setting can be selected in the system menu. Read more on this on page 17.

ℹ *A connected sustain pedal will not affect the Pipe organ model.*

If you use external sound devices you can disable the Nord C2 Combo Organ from responding to sustain messages, but still transmit them via MIDI out. This is set in the System menu, read more on page 17.

MIDI & USB Connections

The settings of the MIDI transmission and reception behavior can be adjusted in the MIDI menu. For more information about this, please go to page 17.

USB Connection

The USB connection is used for the Nord C2 to communicate with a personal computer in order to update the OS or manage the programs. The computer can e.g. be used to transfer the operating system if the unit needs to be updated and to make backups of the memory content.

ℹ *Computers running Microsoft Windows operating systems need a driver for the USB connection to work. The driver can be found at the www.nordkeyboards.com website.*

MIDI Out

Both manuals, all knobs and buttons (Shift, Store and Master Level excluded), pedal connector ports as well as the Bass Pedal input transmits messages via MIDI Out.

MIDI IN

MIDI connection used to receive MIDI messages to the Nord C2 from other equipment such as keyboards or computers.

Bass Pedal

To play the Nord C2 Combo Organ's dedicated bass registers, connect the MIDI Out from your external controller (preferably a bass pedalboard) to the Bass Pedal connector. The bass registers will respond to all MIDI note messages received regardless of their MIDI channel.

Audio connections

Monitor In

Use this to connect and monitor a signal from an mp3 or a CD player at the Nord C2's headphone output. This allows you to e.g. rehearse with the C2 to pre-recorded music.

ⓘ *Signals connected to this input will not be processed with the Nord C2's effects or appear at the left and right output jacks.*

Main stereo output - Left & Right

The left and right line level outputs from the Nord C2 are unbalanced. Use the ¼" connectors to connect the Nord C2 to an amplifier or recording equipment.

General guide on audio connections:
- Make all the connections before you turn on the power to your amplifier.
- Turn on the power to your amplifier last.
- Turn off the power to your amplifier first.

Headphone output

This is where you connect a ¼" stereo connector from a pair of headphones.

⚠ *Playing at a high volume level can result in hearing impairments such as permanent hearing loss.*

Rotary Speaker

The rotary speaker high level outputs consist of a ¼" and a 11-pin Leslie™ standard connector. The high level out are 14V RMS high level, unbalanced, and are only intended to be used, directly connected to a rotary speaker cabinet with built in amplifier. Any other form of use might result in damaged equipment.

It is possible to route the tonewheel organ to the High Level and 11-pin outputs and the other organs to the main outputs. Other combinations are also possible. Read more about this on page 17.

4 Getting Started

Let's take a few minutes to get familiar with the Nord C2. The user interface is designed to be as intuitive as possible, and to perform as well as you do in a live situation. We hope that you soon will feel confident using it, and by following this short chapter, we will go through most of the functions.

About the programs

Complete sound settings are stored in the **Program memory** of the Nord C2. This memory area has 126 locations. Every program can be edited and replaced as you wish. A complete set of the factory programs are available on the www.nordkeyboards.com website.

Select a program

Press the **Up** or **Down** button repeatedly until you've selected the desired program number. The program will be loaded immediately.

Edit a program

Editing a program is just as easy as grabbing a knob, press some drawbar buttons to change a setting, or press a button to select a different setting. The knob's physical position isn't always as the stored setting in the program that is active, but as soon as you start turning a knob, the parameter will snap to the knob's position.

When you have edited a program, a dot will appear in the lower right display corner next to the program number. This will alert you to the fact that the program has been edited but not yet saved. If you select a new program without saving, any edits you have made will be lost and the program will have its original settings the next time you select it.

Memory protect

There is a Memory Protect function that is set to On when the Nord C2 leaves the Nord Factory. This has to be turned Off in the System Menu before you can save a program.

1. Press **Shift + System** and use the Up/Down buttons to select the **Memory Protect Option** – this is the very first option in the System menu.
2. Change the setting of the memory protection to Off by pressing and holding Shift and the Up or Down buttons.
3. Exit the System menu by pressing the Prog/System button again.

ℹ *The setting of the memory protection will be remembered even if the Nord C2 is turned off.*

Storing a program

If you are happy with an edit that you have made, you should probably Store the program.

1. Press the **Store** button.

   The program number LEDs starts flashing.
2. Select a new location where you want to store the program.

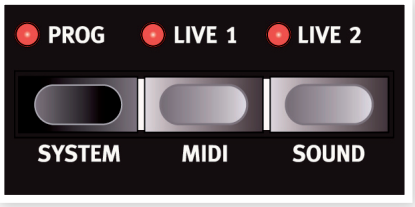
   Use the Up/Down buttons to navigate to a new program location if you do not want to overwrite the original program.
3. Press the **Store** button a second time to confirm your choice.

   The edited program has now replaced the previous one in the location you specified.

ℹ *To cancel the procedure, press the Shift button before you press Store the second time.*

ℹ *With Memory Protect set to Off, a double tap on the Store button will store a Program in its original location.*

The Live buffers

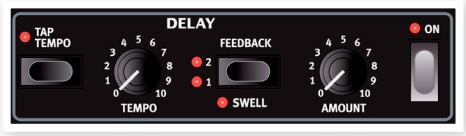


The special **Live buffers** can be described as a "live program memory". If you activate the Live button, all changes to the panel settings you make will be continuously saved.
If you switch the power off, or select another program, the settings are still stored in a Live memory, so when you power up next time (or return to a Live memory) all settings will be exactly as they were when you left them. The dot that appears when a Program is changed is not applicable when a Live buffers is active

If a Live memory is selected and you decide you wish to store the settings permanently as a program you can do so using the standard methods (see above). You can also store programs into the Live memory location, in which case the program settings will replace the current Live memory settings.

Adding effects

1. Select a program and play some notes on the keyboard while you....



2. ... turn on the **Delay** (the On LED should be lit) and then press repeatedly on the Feedback selector.

The feedback options are indicated with the selector LEDs and changes in a cyclical fashion for each time the selector is pressed. When both LEDs are lit you have the maximum amount of feedback.

3. Turn the **Amount** and the **Tempo** knobs while playing.

   This changes the amount and the time between the repeats.

4. Turn on the Reverb with its On button.

5. Hold **Shift** and press repeatedly on the reverb selector.

This allows you to reverse through the reverb selections.

Holding Shift while pressing any selector (except the Organ Model) will cycle through the selections in a counter clockwise fashion.

6. Turn **off** the effect.

If you now continue to press on the effect selector after the effect is turned off, the effect setting will change even though the effect is not active.

This method can be used to select a certain effect setting while playing, without affecting the sound until you actually activate the effect.

Activate an amplifier emulation

1. Press the **Speaker Model** button to activate the Amp emulation.

   The Speaker Model LED will be lit.

2. Press repeatedly on the selector to cycle through the various options.

3. The Drive knob at the upper right of the panel controls the drive for the amps and the rotary simulator. Make sure that Drive is On, and then turn the knob to get the desired amount of overdrive.

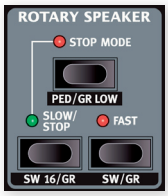
The Rotary effect

The rotary effect adds some great sonic drama to the sound. The Nord C2 rotary has three available speeds: **fast**, **slow** and **stop**. Stop does not disengage the effect; it only stops the rotating speakers

1. Make sure that the **Speaker Model** is activated and select the **Rotary** by pressing the effect selector.

   The drive knob now controls the overdrive of the rotary amplifier.

2. Press the **Slow/Stop** and **Fast** buttons in the **Rotary Speed** section to the left on the panel, to cycle between the **Fast** and **Slow** speeds of the rotary.



The rotors will speed up and slow down, producing a nice swirly effect.

3. Press the **Stop** mode button to activate this one-speed mode.

   The Stop Mode LED will be lit.

4. Press repeatedly on the **Slow/Stop** button to cycle between **Fast** and **Stop**.

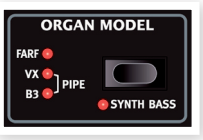
The rotary will now emulate the functionality of an early, one speed original rotary speaker that had only the fast and the stopped rotary speed options.

If you connect a foot switch to the rotor pedal input, you can control the rotary speed with this pedal.

The Speaker Models cannot be used when the Pipe organ selected.

Selecting an organ model

1. Press repeatedly on the **Organ Model** selector to cycle through the four types - the B3, Vox, Farfisa emulations and the sampled Pipe organ.



The settings for the organ sounds are made using the digital drawbars. The Farfisa and the Pipe organ uses these in a switch mode, with only two settings for each.

2. Make a setting with the drawbars and then press one of the **Drawbar/Preset** buttons

3. Make a new preset setting, in order to be able to quickly change from one to the other during a performance.

4 If you press and hold Preview and then a Drawbar/Preset button, you can set up a new sound while the previous settings are still active, and then quickly activate the new settings by pressing the Drawbar/Preset button again.

Splitting the great/lower manual

Select the B3 model and let us split the lower keyboard to try some Bass there:

1 Press the **Pedal - Great Man** button to split the lower keyboard.

The bottom two octaves will now play the tone-wheel bass sound.

2 Use the Pedal drawbars to set up the bass sound as you like it.

3 Press the **Shift** and the **Organ Model/Synth Bass** button to select the synthbass.

The synth bass is automatically selected if the VX or the FARF models are active. The Pipe organ has its own bass registers as well.

4 Use the **Shift** and the **Pedal** drawbars to set the Pluck and Release parameters of the Synth bass sound.

Using the Sound Manager

Installation of the USB driver

Before the Nord C2 Combo Organ can communicate with a computer running a Windows operating system, you need to install a Clavia USB driver. To install the USB driver, follow these instructions:

☼ *Mac users may skip this paragraph.*

1 Download the driver from the Nord C2 download area at www.nordkeyboards.com.

Unzip the downloaded archive.

2 Connect the USB cable between the Nord C2 Combo Organ and the computer and power up the unit. The 'Found New Hardware' wizard should appear, accompanied by its reassuring alert sound.

3 Let the wizard search for the USB driver and install it, or point the wizard to the folder where the driver is.

Sound Manager installation Windows PC

1 Download the Windows version of Nord Sound Manager from the www.nordkeyboards.com website.

2 Run the Install Nord Sound Manager v5.xx.exe and follow the instructions in the setup program.

3 The Nord Sound Manager will be installed in the Program Files folder on the hard disk.

During the installation you will have the option to select an alternative location for the application.

4 Confirm every window in the installation procedure by clicking on the Next button.

The installation may be aborted at any time by clicking on Cancel. When the installation is complete, click the Close button to return to the Windows desktop.

Sound Manager installation Mac OSX

1 Download the Mac OSX version of Nord Sound Manager from the www.nordkeyboards.com website.

2 Open the image file (.dmg) and drag the Nord Sound Manager v5.xx.app to the Applications folder.

☼ *When new versions of the Nord Sound Manager are released, they will be available as a free download at www.nordkeyboards.com.*

Connecting the Manager and the C2

1 Make sure that the Nord C2 Combo Organ is powered up, and connected to the computer, to a USB port.

2 Launch the Nord Sound Manager from the Program Files folder or the Start Menu (PC) or from the Applications folder (Mac OSX).

During the start-up procedure, the Manager will automatically try and establish contact with the Nord C2 Combo Organ.

3 When the Editor finds a Nord C2 Combo Organ, this will be indicated at the lower, right corner of the Manager window and the Program tab will open automatically.

4 A list with all the current Programs in the memory will appear in the Nord Sound Manager window. Read more about the functions in the Manager in the pdf manual that is available on the www.nordkeyboards.com website.

This finishes our little tour; we hope that you now have the initial knowledge on how to operate most of the functions on the panel. The following chapter is the reference section.

5 Nord C2 Reference

Master level knob

This control sets the **overall output level** of the C2, at the line- and the headphone outputs. The setting of this control is not stored in a Program.

Shift button

Many buttons have a second job, whose function is printed below the button or knob. You access these additional functions and parameters by holding down **shift** while pressing a button.

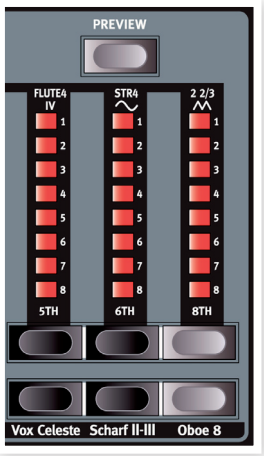
The Organ area

The Nord C2 Combo Organ features four Organ Models; one digitally modeled tonewheel/B3 organ, two digitally modeled transistor (VX and Farf) organs and a sampled baroque pipe organ.

The Organ area features three main sections for control:

- The Drawbar section is where you set-up the basic organ sound structure. It is divided into three areas connected to the Swell and Great manuals, plus the Bass Pedal registers.
- The Percussion area is where you control the percussion effect (available to the B3 organ model only)
- The Vibrato/Chorus area is where you select the chorus and/or vibrato effect depending on the selected Organ Model.

The Drawbars



The drawbars of Nord C2 Combo Organ are represented by buttons and LED chain graphs instead of ordinary mechanical drawbars. This gives you a big advantage: when you change preset or program, the correct drawbar settings are recalled immediately and shown by the LEDs. In other words, no need for the regular “trial and error” method. It’s very easy to get the hang of changing the drawbar settings in a natural way with the Buttons.

The drawbars of Nord C2 Combo Organ behave similar to their mechanical counterparts, i.e. with the B3 and VX models you “pull out” and “push in” the drawbars using the drawbar buttons.

The buttons are special in the way that they auto-increment/ decrement the drawbar value when held. If you hold a drawbar button the corresponding drawbar value will continue to increment or decrement (within its range) until you release the button.

While holding a drawbar button, you can press its sibling button to momentarily auto-increment/decrement in the opposite direction. With the Farf and the Pipe models, drawbar buttons functions as switches, toggling each register on or off.

Drawbar/Perc Preset Buttons

The preset buttons lets you change back and forth between different drawbar set-ups instantly. Changes that you make needs to be saved with the program or else they will be lost when you select a new program. Read more on how to save a program on page 15.

If the Pipe organ is active, the six preset buttons stores the settings for both the swell and the great manuals.

If the B3, VX or the Farf models are active, the presets contains individual settings for the upper and lower manuals. Further to storing the drawbar settings, the upper manual’s percussion settings are stored as well.

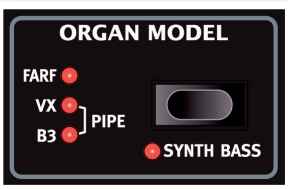
Preview

By pressing and holding the Preview button and then one of the two Presets that are not currently active, you can continue to play with the “current” setting, while dialing in a new setting in the background. When you are done, tap the flashing Preset button to immediately activate the new setting.

Splitting the great manual

By pressing the Great Man button you split the great (lower) manual in two sections at the C3 key. The lower two octaves of the great manual is now connected to the Bass drawbars.

Selecting The Organ Model



You select which model to play using the Organ Model button. Only one model can be used at a time.

When the B3 model is activated the Bass Drawbars control the B3 bass registers.

When the B3 model is activated you can activate the Synth Bass model by pressing Shift + Organ Model button.

When the VX or Farf models is activated, the Bass Drawbars control the synth bass model.

When the Pipe model is activated, the Bass Drawbars control the pipe organ bass stops.

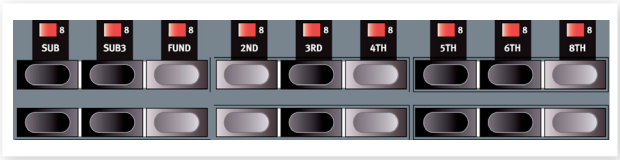
The B3 Model

This model is based on a digital simulation of the classic mechanical tonewheel organ. This simulation utilizes innovative and advanced methods to capture every nuance of the original sound, for example:

- An extremely accurate digital model of the original chorus and vibrato scanner.
- Modeling of the individual random contact bounces for each harmonic.
- Modeling of the unique frequency characteristics of the built-in preamplifier, which forms the “body” of the sound.
- Simulation of the energy robbing on the tone wheels that results in the typical “compressed” sound.
- Authentic tuning of the tonewheels according to the original design.
- Extremely fast keyboard response.
- Full polyphony.

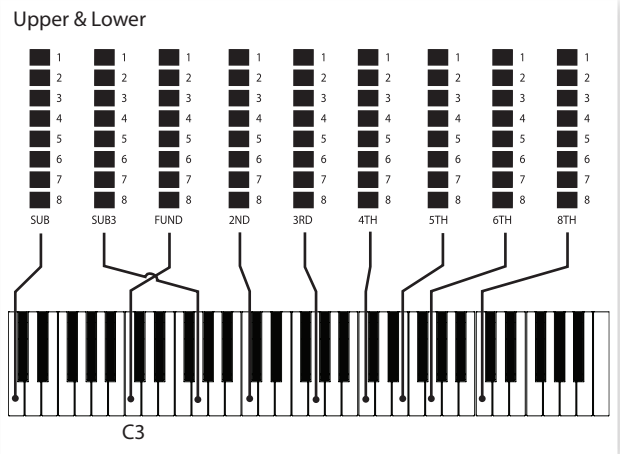
The Drawbars

The harmonic intervals for the tonewheel organ are printed on the panel below the drawbars.

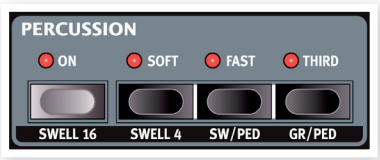


For basic drawbar operation, please refer to “The Drawbars” on page 11. Each drawbars represents a partial with a fixed harmonic interval in relationship with the played note.

The illustration below shows the pitch interval among the nine drawbars when the key of C3 is played. Note that the SUB3 drawbar actually lies a 5th above the fundamental harmonic. However, in most situations it is perceived as sounding below the basic harmonic.



Percussion



The Percussion effect adds extra attack to the sound by having a single envelope generator controlling either the 2nd or 3rd harmonic.

The envelope “opens up” for a short moment in the beginning of the sound when you press the key(s). The percussion is a single-triggered non-legato effect. By “single-triggered” we mean that the percussion is only present when you hit the keys when no other note is sounding. In other words, if you play a note or a chord and then add on more notes without releasing the previously pressed keys, there will be no percussion effect in the new notes. You have to release all keys to be able to play new notes with the percussion effect.

The percussion effect is available to the swell manual, and is activate and deactivate by pressing the On button. The Soft button toggles between Normal and Soft percussion level. The Fast button toggles between Slow and Fast decay times.

The Third button toggles between using the 2nd or 3rd partial as the source for the percussion effect The percussion decay time can be fine-tuned for Fast and Slow mode individually. Please refer to “The Sound Menu” on page 17 for details.

ℹ *With the original instrument, you could not use the percussion effect and 9th Drawbar simultaneously. However with the Nord C2 you have a choice. You can use the percussion and 9th Drawbar together or chose to mimic the original organ behavior by turning off the 9th Drawbar whenever the percussion is activated. Read more on the Perc Drawbar 9 Cancel setting in the Sound menu on page 17.*

Vibrato

The original vibrato and chorus scanner in a tonewheel organ consists of a tapped delay line in combination with a rotating scanner. For the Vibrato effect, phase Shift is applied to the signal. For the Chorus effect, the phase modulated signal is added to the original signal.

Three different types of choruses (C1- C3) and three different types of vibratos (V1-V3) are available. Select one of these types by pressing the Mode button. The effect can be activated/deactivated for both manuals individually by pressing the Vibrato/Chorus button for the swell and great drawbars

Please note that the Vibrato/Chorus button for the great manual also controls this effect for the tonewheel Bass registers.

Key click control

The key click produced by the random contact bounces is an important audio artifact. This quickly became a desirable effect amongst musicians. You can adjust the click level in the Sound menu.

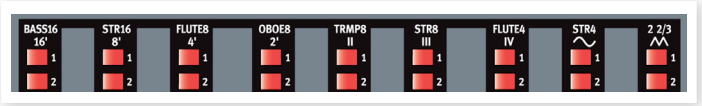
Do not forget to try out the four tonewheel modes that are available in the Sound menu. These will dramatically change the sound of the B3 model from squeaky clean to a battered, old work horse.

The VX Model

The original Vox™ organ is probably the most famous of all the transistor-based combo organs that emerged in the early 60's. Transistor technology made it possible to manufacture much more compact and portable organ instruments. Compared to the mighty sound of tonewheel based organs, transistor organs generally sounded reedier and weaker, but this one had a distinctive sound character which together with the portability and cool design (inverse colored keyboard and chrome "Z-frame" stand) made the instrument massively popular at the time. The sound is timeless and recreated faithfully in Nord C2 Combo Organ.

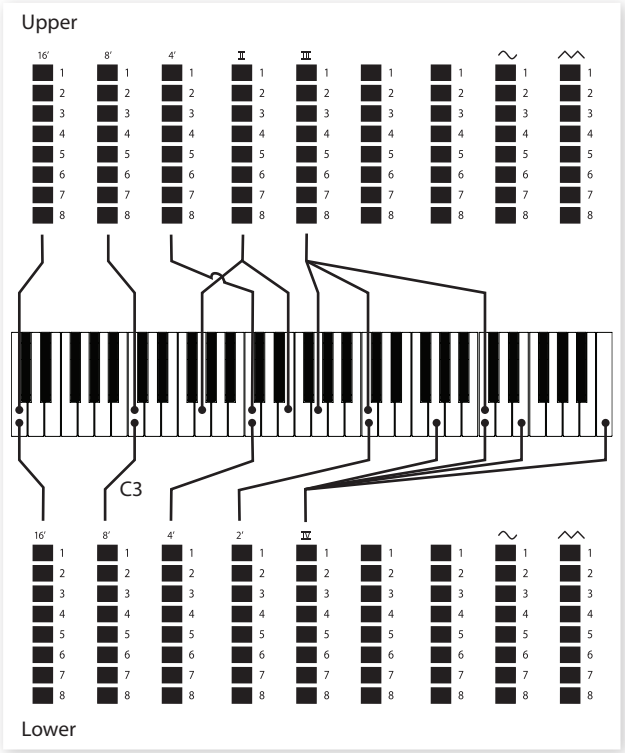
The Drawbars

The labels used for the VX drawbars are printed on the row directly above the drawbar LEDs.



For basic drawbar operation, please refer to "The Drawbars" on page 11.

The seven left most drawbars control the level of each partial. Each partial has a fixed harmonic interval relating to the played note. The illustration below shows the pitch interval of the drawbars when the key of C3 is played. The intervals vary for the upper and lower manual on the original instrument, but are identical on the Nord C2.



The two right most drawbars control the sum of all partials in the form of a filtered signal sounding soft and dark, and an unfiltered signal sounding bright and intense.

⚠ *If these drawbars are both fully "pushed in", the organ will produce no sound.*

Vibrato

There are several types of vibrato and choruses available for the VX model, which is activated using the Swell/Great buttons in the Vibrato section. The V3 setting is the one that is modeled after the original instrument.

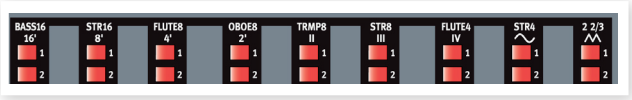
ℹ *The VX models vibrato setting is common for both the swell and great manual.*

The Farf Model

This typical "buzzy" sound of this vintage instrument is one of the most distinct and easily recognizable organ sounds ever created, yet it is actually possible to get quite a wide range of sounds out of the instrument. Note that the voices aren't supposed to replicate the instruments they are named after, but rather to describe the basic tonal characteristic of the voice; Flute - soft, Oboe - reedy, Trumpet - brassy.

The Register selectors

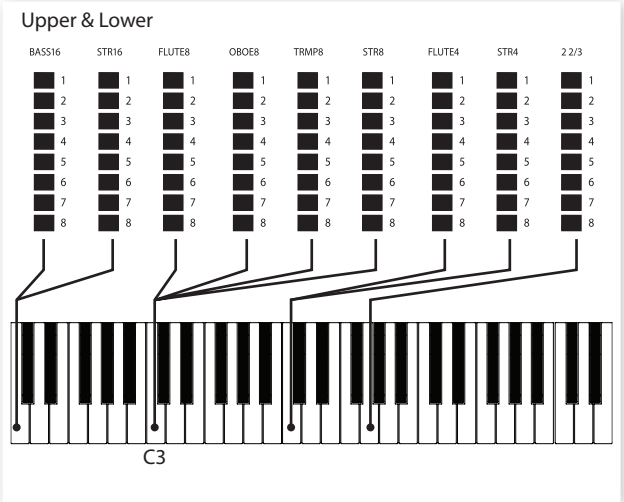
The labels used for the Farf drawbars are printed on the upper row above the drawbar LEDs.



The drawbars act as on/off switches, or "register selectors" when the Farf model is selected. Instead of drawbars, the original instrument featured "rocker"-type switches select instrument "voices" (actually different filter settings) in various footage (octave) ranges. The drawbars buttons are used to turn voices on and off. The drawbars LEDs 5-8 are lit up for an activated voice, and drawbars LEDs 1-4 are lit up for a deactivated voice. The table below shows the original register name.

Register Selector	Voice	Panel Name
1	Bass 16	BASS16
2	Strings 16	STR16
3	Flute 8	FLUTE8
4	Oboe 8	OBOE8
5	Trumpet 8	TRMP8
6	Strings 8	STR8
7	Flute 4	FLUTE4
8	Strings 4	STR4
9	A bright voice, an octave and a fifth above the fundamental	2 2/3

The illustration below shows the pitch interval between each voice when the key of C3 is played. Though some voices have the same pitch, they differ in tonal character.



Vibrato

The original instrument have two basic vibrato modes; “Light” and “Heavy”, with different rates for each mode. There are several types of vibrato and choruses available for the FARF model in the C2, which are activated using the ON button in the Vibrato section.

ℹ *The V1, V2 and the V3 settings are the ones that are modeled after the original instrument’s.*

ℹ *The FARF models vibrato setting is common for both the swell and great manuals.*

The Pipe Organ

The pipe organ model is a sampled classic organ with a set of pipes that is of the baroque variety. The drawbars on the C2 acts as “stops” and the different stops are labeled below the lower drawbar buttons. A stop can be on or off, similar to the register selectors in the FARF model.

The two manuals have 9 different stops each. Their names are printed on the panel below the drawbar buttons. The pedals have 3 stops, the Fagot 16 can be added to the Sub stop by pressing the drawbar-down button a second time.

ℹ *When the pipe organ is selected, the speaker models, the sustain pedal and the drive function will be inactive.*

Tremulant

When the pipe organ is selected, the vibrato/chorus function acts like the tremulant of the original instrument. This functionality is achieved by varying the actual wind supply to the pipes on a pipe organ. The tremulants in the C2 can be activated individually for the swell and the great manuals and you select which one to use by pressing the Vibrato Mode button. The tremulant has two rates (V and C) with three depths each (1, 2 & 3).

☼ *Press and hold Shift to cycle through the tremulant settings in a counter-clockwise fashion.*

ℹ *The bass stops are not affected by the tremulant.*

The Couplers

When the pipe organ is used, the controls on the panel for the Rotary simulation and the Percussion controls are used to activate the pipe organs couplers instead. A coupler allows the stops of one division or manual to be played from another manual. This can be used to create huge sounds, combinations of stops across the manuals and also to use the pedal stops in combination with the two manual’s stops.

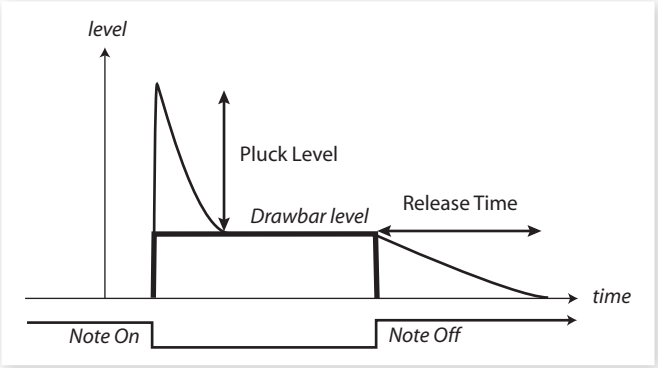
Coupler	Description
PED/GR LOW	This couples the lowest key played on the great manual to the bass stop. The affected range ends at F3. This is a great way to move some serious air even if you do not have a set of pedals.
SW 16/GR	This couples the stops on the swell manual to be played on the great manual. The stops are also transposed one octave down.
SW/GR	This couples the stops on the swell manual to be played on the great manual without any transposition.
SWELL 16	This doubles the stops on the swell manual, with the doubling transposed one octave down.
SWELL 4	This doubles the stops on the swell manual, with the doubling transposed one octave up.
SW/PED	This couples the swell manual stops to the pedals.
GR/PED	This couples the great manual stops to the pedals.

The Synth Bass Model

The synth bass model is available when the B3, VX or Farf models are activated. For the tonewheel model you can alternate between the original tonewheel bass registers or the synth bass model by pressing Shift + Organ Model Buttons.

The main feature of the synth bass model is a monophonic bass synthesizer with adjustable release time, giving you more time to move your foot when using a foot pedal board. It also has an adjustable pluck for a more pronounced attack. Pluck and release time are adjusted with the Bass drawbars while holding down the Shift key.

The bass can also be played from the Great manual, by pressing the Great Man button. Please look at page 11 for detailed information.



Program area

What is a program?

All sound related knob and button settings can be stored into any of three storage areas; Prog, Live 1 and Live 2. These can be selected with the corresponding buttons.

With Prog activated, 126 program locations are available. The current program location number is shown in the display.

⚠ *Changes that you make has to be stored in order not be lost when you select another program.*

Live 1 and Live 2 contains one complete panel setting each. Changes are saved automatically, so when you load a stored program or even when you power off, all settings will be exactly as you left them the next time you return to that live program.

Loading a Program

When Prog is activated, you can select a program location by pressing the Prog/Menu buttons. Programs will be loaded automatically.

When a Live program is activated, you can select a stored program in the Prog area by navigating the Prog/Menu buttons, but the program will not be loaded until you press the Prog button.

Storing a Program

To store a program to any of the 126 program locations:

1. Press the Store button once and the current Program number will start to flash.

ℹ *If the LED shows "PRO", you must turn off memory protection in the system menu. Please refer to "System Functions" on page 17.*

2. Select the desired location with the Up/Down Buttons and press Store again to confirm your intentions to store the current settings to the selected location.

The LED will briefly indicate "STO" to confirm that the program has been stored.

Press any button if you wish to abort the store procedure.

ℹ *The Program section is also where you enter the System, MIDI and Sound menus. Read more about these functions on page 17.*

Prog/Menu Buttons

The Prog/Menu Buttons to the left of the display have several functions in the Nord C2. Press repeatedly to select one of the 126 Programs; the number of the Program will be presented in the LED.

If you have activated any of the three menus, the System, MIDI or Sound menu, these buttons are then used to select a function, and together with the Shift button, to change the value of a selected function. Read more about the menus on page 17.

Display

The LED display will show the active Program number. If you edit the settings of a Program, a dot will appear next to the Program number, at the bottom right of the display.

If you have activated any of the three menus, the System, MIDI or Sound menu, the setting for each menu item is shown with the LED's.

Live

If you press any of the two Live buttons, all changes to panel settings you make will be continuously saved in the "Live Buffer". If you switch the power off, or select another program, the settings are still stored in the live memory, so when you power up next time (or return to the live memory) all settings will be exactly as you left them.

If the live memory is selected and you decide you wish to store the settings permanently as a program you can do so using the standard methods (see above). You can also store programs into the live memory location, in which case the program settings will replace the current live memory settings.

Effect area

Speaker Model

This allows you to select the speaker/amp and rotary emulations.

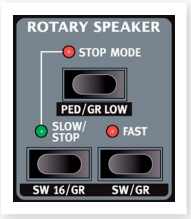
JC and **Twin** emulates two different kinds of amplifier and speaker cabinets. The amount of overdrive is controlled by the Drive Amount controls to the upper right on the panel.

Rotary simulates a rotary speaker including its built-in amplifier. The C2 has two models of rotary speakers, you select these in the Sound Menu, see page 18 for details.

- *The Drive knob to the upper right on the panel sets the amount of overdrive of the rotary amplifier.*
- *The speed of the rotating speaker is set with the rotary speed controls on the left side of the panel.*

Press the Speaker Model button repeatedly to cycle through the available settings.

Rotary Speaker controls



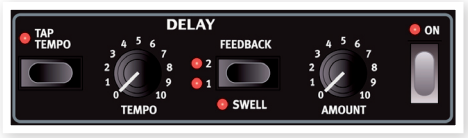
The rotary speaker speed is set with the buttons in the Rotary Speaker section to the left side of the panel.

You can also connect an external control to the Rotary control input on the back panel, such as a sustain pedal, pedal switch or the Half Moon Switch accessory.

A sustain pedal can operate by momentarily changing the speed setting or by toggling between slow and fast or if the Stop mode is activated on the panel, between stop and fast.

Please refer to the “System Functions” on page 15 for further information.

Delay



The Nord C2 is equipped with a delay featuring echoes/repeats with adjustable tempo and feedback settings. The On button activates/deactivates the effect.

- *All knobs and buttons will always be active even though the effect needs to be activated in order for the change to be audible.*

The tempo knob controls the delay time. The tap tempo button allows you to set the delay time by tapping the button repeatedly “in time”.

The amount knob acts as a effect send control, to set the amount of the dry signal that will be routed to the delay.

The feedback button selects number of repeats, starting with 1 repeat (no LEDs lit) to many repeats (both LEDs lit). Press repeatedly on this button to set the feedback amount.

- *By activating the Swell only function (Shift + Feedback), the delay effect is limited to the swell manual.*

EQ

This is a 3-band equalizer with treble, mid and bass controls. The frequency ranges can be boosted/attenuated with +/- 15 dB. The On button activates/deactivates the effect.

Drive

The Drive knob controls the amount of gain applied to the amps or Rotary Speaker effects respectively, depending on the Speaker Model setting. The On button activates/deactivates the effect.

If no speaker model is activated, the drive knob will introduce a generic overdrive to the sound.

Reverb

The reverb simulates the natural sound reflections in various acoustic environments. The On button activates/deactivates the effect.

The Reverb amount knob sets the balance between the unprocessed and the processed signal. By pressing the reverb button you can choose between five reverb types, indicated by the three LEDs lit one or two at a time.

- Hall Soft - A reverb with the response and character of a spacious hall, with a long decay and a mellow character.
- Hall - A Hall reverb with a slightly brighter character.
- Stage Soft - A reverb with a medium decay time and mellow character.
- Stage - A medium decay reverb, with slightly brighter character.
- Room - Room ambience with a rather short decay time.

6 The Menus

Any settings that you change in the **System**, **MIDI** or **Sound** menu will take immediate effect on a global basis, and will be stored until you change them the next time *. Enter the menus by pressing and holding Shift and the System, MIDI or Sound button (Prog, Live 1 or Live 2). Select a function with the Up/Down buttons and change the setting by pressing and holding Shift and the Up or Down button. Exit the menus by pressing a second time on the Prog, Live 1 or Live 2 button.

ℹ ** The only exception to this is the MIDI Local On/Off setting which always reverts to Local On every time the Nord C2 is powered up.*

System Menu

Memory Protect – On, Off

This is set to "On" when the Nord C2 leaves the factory, meaning that you cannot save any changes to the programs. Set this to Off when you wish to store your own programs. The System, MIDI or Sound menu settings and the Live memory are not protected by this setting.

Range: On (default), off

Output Routing L/R

If you want to process your sound using external effects or separate amplifier systems, it can be convenient to route organs to separate outputs of the Nord C2. This setting determines which organs should be routed to the main left & right outputs.

Range: P - Pipe organ.

Pb - Pipe organ and the B3 model.

PE - Pipe organ and the VX and Farf models.

A - All models.

⚠ *If the High Level or 11-pin output is not connected, all organs will be routed to the L&R outputs.*

Output Routing Ext. Rotary Spkr

This setting determines which organs should be routed to the 11-pin and High Level outputs.

Range: b3 - B3 model.

E - The VX and Farf models.

bE - The B3, the VX and the Farf models.

⚠ *If the High Level or 11-pin output is not connected, all organs will be routed to the L&R outputs.*

Transpose

Transpose allows you transpose the pitch of the Nord C2 up or down in semitone steps.

Range: -/+ 6 semitones (default = 0).

Fine Tune

This allows you to fine tune the pitch of the Nord C2.

Range: +/- 50 cent (default = 0).

Sustain Pedal Polarity

This allows you to change the polarity of a connected sustain pedal, in case the functionality of your pedal is reversed (i.e. when the pedal is up, sustain is on and vice versa).

Range: OP - Open, CL - Close (default).

Sustain Pedal Configuration

Controls weather the selected organ model should respond to sustain pedal messages or not. When a pedal is connected to the sustain pedal input, sustain pedal messages are always send via MIDI Out regardless of this setting.

Range: On (default), Off.

ℹ *The pipe organ is never affected by a sustain pedal.*

Rotor Ctrl. Type

Specifies the type of controller connected to the Rotary Control input.

Range: HA - Halfmoon, OP - Open, CL - Closed (default).

Swell Pedal Type

Different brands of control pedals have different specifications (resistance, offset and linearity). To simplify setup and to optimize the response of the pedal for the Nord C2, the most common pedal makes are pre-configured, and you simply select the type of pedal you connect.

Roland, Yamaha and Fatar are linear control pedals with different scaling and offset. Ernie Ball pedals ("ErnieB") are marketed as volume pedals, with a logarithmic response, but the response is rescaled internally in the Nord C2 to make them work nicely as control pedals. They may need a Y-cable (stereo plug -> 2 mono plugs) to work with the Nord C2.

Range: FA - Fatar, Er - Ernie Ball, YA - Yamaha, rO - Roland (default)

Rotor Pedal Mode

If you are using a sustain pedal connected to control Rotor Speed this allows you to set how this should operate. “Hold” means that the Rotor Speed is fast for as long as the pedal is down and reverts back to slow/stopped when the pedal is released (or vice versa depending on the set pedal polarity).

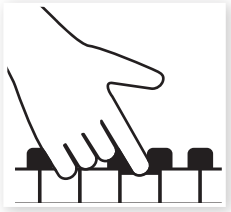
“Toggle” means that the fast & slow/stopped rotor speed is cycled each time you activate the pedal, like an on/off switch pedal.

Range: Hd - Hold, (default), tO - Toggle.

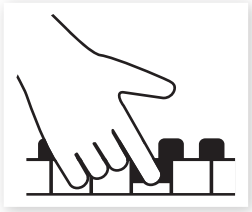
Organ Trig Mode

This allows you to change how the Nord C2 keyboard triggers the organ sounds. When “High” is selected, you will trigger the organ sounds before the key reaches the end of its travel. This mode closely mimics the way a vintage tonewheel organ or a pipe organ trigger its notes.

Range: H- High (default), L- low



High trigger point



Low trigger point

Drawbar Speed

This sets the speed with which the drawbars will increase or decrease the values when the drawbar buttons are held down.

Range: F- Fast (default), S- slow.

MIDI Menu

Swell Channel

This sets the MIDI Channel that the swell manual on the Nord C2 transmits and responds to.

Range: Off, 1-16 (default = 1)

Great Channel

This sets the MIDI channel that the great manual on the Nord C2 transmits and responds to.

Range: Off, 1-16, (default = 2)

Pedal Channel

This sets the MIDI channel that the Bass section of the Nord C2 organ transmits (if the Great manual is split) and responds to.

Range: Off, 1-16, (default = 3)

Local Control

This allows you to set if the Nord C2 keyboard and front panel controls should control internal Programs or only send note and controller messages via MIDI. Local On is the normal “mode”. In Local Off mode, the front panel and keyboard action are transmitted via MIDI only and does not control the internal sound(s) directly.

If the “E” mode is active, the keyboard of the C2 will transmit velocity.

Range: On (default), Off, E - External Device

ℹ *Local defaults back to mode On every time the Nord C2 is powered on.*

Control Change (CC) Mode

This setting specifies how the front panel’s knobs and buttons are handled in the MIDI communication with MIDI Control Change messages. You can select if the panel controls and functions should either send or receive, or both or if Control Change messages should be ignored.

Range: Sr (send & receive - default), r (receive only), S (send only), Off

Program Change Mode

Specifies how the Nord C2 should handle MIDI Program Change messages.

Range: Sr (send & receive - default), r (receive only), S (send only), Off

Send CC

You can perform a dump of all the active Program’s parameters as MIDI Control Change messages. Press the Store button to perform the dump.

Dump One

This allows you to perform a MIDI SysEx dump of the currently selected Program. Press the Store button to perform the dump.

Dump All

This allows you to perform a MIDI SysEx dump of all the Programs in the Nord C2. Press the Store button to perform the dump.

In the MIDI chapter, on page xx is a description on how the Nord C2 receives a Sys Ex dump.

Sound Menu

Treble Horn Speed

Sets the speed setting (in the fast and slow speed modes) of the rotary speaker simulation’s treble horn.

Range: H - High, n - Normal (default), L - Low

Bass Rotor Speed

Sets the speed setting (in the fast and slow speed modes) of the rotary speaker simulation's bass rotor.

Range: H - High, n - Normal (default), L - Low

Treble Horn Acceleration

Sets the acceleration and retardation time of the rotary speaker simulation's treble horn.

Range: H - High, n - Normal (default), L - Low

Bass Rotor Acceleration

Sets the acceleration and retardation time of the rotary speaker simulation's bass rotor.

Range: H - High, n - Normal (default), L – Low

Perc. Fast Decay

Sets the fast mode decay time of the B3 percussion effect.

Range: L - Long, n - Normal (default), S- Short

Perc. Slow Decay

Sets the slow mode decay time of the B3 percussion effect.

Range: L - Long, n - Normal (default), S- Short

Perc. Norm Level

Sets the level of the percussion effect in the normal setting.

Range: H - High, n - Normal (default), L – Low

Perc. Soft Level

Sets the level of the percussion effect in the soft setting.

Range: H - High, n - Normal (default), L – Low

Tonewheel Mode

Sets the level of tonewheel crosstalk and cable leakage artifacts of the B3 organ model.

Range: u3 – Vintage 3, u2 - Vintage2, u1 - Vintage1 (default), Cl – Clean

Perc Drawbar 9 Cancel

If this is set to cancel, the 9th drawbar will be muted when the percussion is activated, to mimic the behavior of an original organ.

Range: C – Cancel, n – Normal (default).

Key Click Level

This sets the amount of Key Click for B3 organ model.

Range: High, Normal (default), Low

Rotary Model

Sets the rotary model. The "A" model is a recent addition, modeled on a vintage 145 unit. The "b" model is the original Clavia rotary emulation.

Range: A (default), b

Pipe Pedal Level

This allows you to adjust the level of the Pedal manual, for the Pipe Organ.

Range: High, Normal (default), Low

Pipe Swell Level

This allows you to adjust the level of the Swell manual for the Pipe Organ.

Range: High, Normal (default), Low

7 MIDI functions

About the MIDI implementation

The following MIDI messages can be transmitted and received from the Nord C2:

Note On/Off

- Note On and Note Off messages are transmitted and received.

Controllers

In the MIDI Menu (see page xx), you can select if the Nord C2 should transmit and/or receive Control Change messages.

- Incoming MIDI Controller 7 controls the overall volume of the Nord C2.
- Incoming MIDI Controller 10 controls the panning of the Nord C2.
- If you have a control pedal connected to the Swell pedal input, this is transmitted as Controller 4 (Swell).
- If you have a pedal connected to the sustain pedal input, this is transmitted as Controller 64 (Sustain Pedal).
- If you have a pedal connected to the rotor pedal input, this pedal is transmitted as Controller 90.
- Almost all other controls (knobs and buttons) on the front panel are also transmitted (and received) as Control Change messages. This can be used to record your actions on the front panel into a MIDI sequencer. For a full list of which parameters correspond to the Controller numbers, see the MIDI implementation on the next page.

Keyboard velocity

The Nord C2 can transmit and receive keyboard velocity messages. Organ sounds will always be played back at nominal level regardless of incoming MIDI Velocity data. Release velocity is also transmitted.

Program change

In the MIDI Menu (see page 17), you can select if the Nord C2 should send and/or receive Program Change messages.

When you select a Program, a Program Change message is transmitted via MIDI. If a Program Change message is received on the selected MIDI Channel, the Nord C2 will change Program accordingly.

The 128 Program locations (programs 1-126 + Live 1 and Live 2) send and respond to MIDI Program Change values 0-127.

MIDI Sysex (System Exclusive)

Individual Programs or all Programs can be transmitted and received as a System Exclusive dump.

Nord C2 with a sequencer

Connections

1. Connect the MIDI Out on the Nord C2 to the MIDI In on your sequencer.
2. Connect the MIDI Out from your sequencer to the MIDI In on the Nord C2.

Local On/Off

Local Off may be used when you use a sequencer to record and play back from Nord C2. If the sequencer echoes back incoming MIDI data, the Nord C2 may respond twice to every note and other message/action if e.g. the keyboard and the sequencer sends the same MIDI information to the unit. Local On/Off is set on the “MIDI menu” see page 17.

MIDI Channel

The MIDI channel(s) that the Nord C2 uses are set up in the MIDI menu - see “MIDI menu” on page 17.

Program Change

Usually you select a Program Change value for a track in the sequencer track settings. The 128 program locations send and respond to Program Change values 0-127.

If you want to record a Program Change message, activate recording in the sequencer and simply select the program on the Nord C2.

Controllers

When you record actions with knobs and buttons, make sure that the sequencer “echoes” the changes back on the correct MIDI Channel, or your changes won’t have any effect.

Some notes about controllers and “chasing”

Consider a situation where you record a Controller message, e.g. a Drawbar opening, in the middle of your sequencer song. Then you “rewind” the sequencer to a position before the recorded Drawbar opening. The problem is that the Nord C2’s Drawbar will remain opened, although it really should be as it was before you recorded the opening.

To solve this, you could record a “snapshot” of all Controller settings of the Nord C2 Program at the beginning of your sequencer song. See “Sending MIDI Controller dumps” below.

Program and CC dumps

To dump a Program SysEx, or MIDI Controller data via MIDI, either to another Nord C2 or for recording the data into another MIDI device, proceed as follows:

Sending program dumps

1. Connect the MIDI OUT on the Nord C2 to the MIDI In on the receiving device.
2. Set up the receiving device to accept MIDI SysEx and MIDI Controller data.
3. Press Shift + MIDI and select the “Dump One” or “Dump All” menu item using the Up/Down buttons.
4. If needed, set the receiving MIDI device to “recording mode”.
5. Press the Store button to send the dump to the MIDI Out of Nord C2. The display will stop flashing once the dump has been sent.

Sending MIDI Controller dumps

1. Set up as in steps 1 and 2 in the preceding description.
2. Press Shift + MIDI and select the ‘Send CC” menu item using the Up/Down buttons.
3. Press the Store button to send the dump to the MIDI Out of Nord C2. The Display will stop flashing once the dump has been sent.

This will send a snapshot of the current, active panel settings as CC values.

Receive MIDI SysEx dumps

Here is how to receive a MIDI SysEx Dump:

1. Connect the MIDI Out on the transmitting device to the MIDI IN on the Nord C2.
2. Initiate the transmission on the transmitting device.

If the dump contained all Programs (All), it will replace all programs currently stored in the Nord C2. If the dump contained only a single program, it will be temporarily placed in the currently selected program memory location. A dot will appear to in the lower, right corner to indicate an unsaved edit. You will then have to store the program manually to a memory location using the Store function (see “Storing Programs” on page 15).

MIDI Controller list

This is a list of the MIDI Controller numbers used for all knobs and buttons on the front panel and the pedals. When a function is available for both the Swell. Bass and/or Great manuals (on their respective MIDI channels) this is indicated with an asterisk *.

Nord C2 Parameter	MIDI Controller
Organ Model Selector	9
Synth Bass On/Off	110
Speaker Sel	81
Delay Tempo	77
Delay Feedback	78
Delay Swell Only	75
Delay Amount	76
Delay On/Off	80
EQ Treble	113
EQ Mid	116
EQ Bass	114
EQ On/Off	115
Drive Amount	111
Drive On/Off	112
Reverb Amount	102
Reverb Selection	96
Reverb On/Off	97
Vib/Chorus/Trem Mode	84
Vib On/Off (SW/GR) *	85
Drawbar/Perc Presets *	3
Ped Great Man	117
Rotary Speaker Control	82 (0 = Slow, 64 = Stop. 127 = Fast)
Ped/GR Low coupler	103
SW 16/GR - SW/GR	104
Drawbars -	Sep. for Swell, Bass and Great MIDI CH
Drawbar 1 *	16
Drawbar 2 *	17
Drawbar 3 *	18
Drawbar 4 *	19
Drawbar 5 *	20
Drawbar 6 *	21
Drawbar 7 *	22
Drawbar 8 *	23
Drawbar 9 *	24
Perc On/Off	87
Perc Soft	28
Perc Fast	27
Perc Third	95
Swell 16 & 4 coupler	105
Swell/Ped & Gr/Ped coupler	106
Sustain Pedal	64
Swell Pedal	4
Rotary Control	82 (same as panel)

MIDI Implementation Chart

Function		Transmitted	Recognized	Remarks
Basic Channel		1 - 16	1 - 16	
Default Channel		1 - 16	1 - 16	
Mode	Default	Mode 3	Mode 3	
	Message	X	X	
	Altered			
Note		0-127	0-127	
Number	True Voice			
Velocity	Note ON	O, v= 1 - 127	O, v= 1 - 127	
	Note Off	O, v= 1 - 127	O, v= 1 - 127	
After	Key's	X	X	
Touch	Channel	X	X	
Pitch Bender		X	X	
Control Change		O	O	
Program Change		O, 0-127	O, 0-127	
True#				
System Exclusive		O	O	
System	Song Pos	X	X	
Common	Song Sel	X	X	
	Tune	X	X	
System	Clock	X	X	
Realtime	Commands	X	X	
Aux	Local on/off	X	X	
Message	All notes off	X	X	
	Active Sense	X	X	
	Reset	X	X	
Number	True Voice			

Mode 1: Omni On, Poly - Mode 2: Omni O, Mono - Mode 3: Omni Off, Poly - Mode 4: Omni Off, Mono - O = Yes - X = No

Model: Nord C2 OS v1.x Date: 2009-05-25

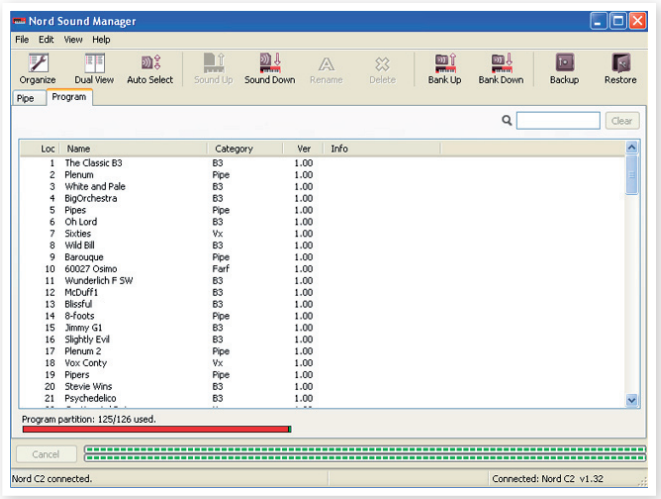
8 Appendix

Nord Sound Manager

The Nord Sound Manager is the application that allows you to organize the memory area in the Nord C2. It is also used to download programs to the Nord C2 or to upload these items - called sounds - from the Nord C2 memory to the computer hard drive. The Nord Sound Manager provides access to various methods to download the sounds to the unit and a function to backup and restore the entire Nord C2 memory.

System requirements

The Nord Sound Manager is compatible with computers running Mac OSX 10.4 or later, Windows XP and Windows Vista. If you run the Nord Manager on a Windows computer, you also need a Clavia USB Driver of version 2.14 or later installed. The driver and instructions are available on the CDROM that accompanies the unit.



Updates

Please visit our website at http://www.nordkeyboards.com to download any updates of the Nord Sound Manager. These items will be available as free downloads in the Nord C2 download area.

The *Nord Sound Manager, USB drivers and further instructions on how to install and use these are available at the www.nordkeyboards.com website.*

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